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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09.881.716	06.18.2001	Masahiro Saito	HITA.0060	7953

7590

05.06.2003

REED SMITH HAZEL & THOMAS LLP
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EXAMINER

THAI, LUAN C

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 05/06.2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/881,716	SAITO ET AL.	
	Examiner	Art Unit	
	Luan Thai	2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5-7,9,13-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) 5,6,13-17 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,7,9,21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is responsive to the amendment filed February 06, 2003.

Claims **3, 5-7, 9, 13-17 and 19** are pending in this application.

Claims **5-6, 13-17, and 19**, have been withdrawn from consideration as being directed to a non-elected invention.

Claims **1, 2, 4, 8, 10-12, 18, and 20** have been canceled (paper No. 12).

Claim Objections

1. Claims **22** is objected to because of the following informalities:

The phrase "A semiconductor device according to Claim 3" in claim **22**, line 1, should be changed to – A semiconductor device according to Claim 7--. Note that the limitation "two hand leads" is recited in claim 7, not in claim 3.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 3, 7, 9, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kasai et al (5,475,259).

The figures and reference numbers referred to in this office action are used merely to indicate an example of a specific teaching and are not to be taken as limiting.

Regarding claims 3, 7, 9, and 21, Kasai et al (see specifically figures 39-41, Col. 20, line 41 to Col. 23, line 5) disclose a semiconductor device comprising: a plurality of leads 225 each has a top surface, a bottom surface, two side surfaces, and two end surfaces, the leads having a square cross section shape perpendicular to the longitudinal direction of the leads; a resin encapsulated body 221 having a first surface, a second surface opposite the first surface and having a smaller area than the first surface, and four side surfaces through which the leads 225 project, wherein the resin encapsulated body contains a tab 224 sealed therein, and there are two hand leads 233 (Col. 22, lines 61+), each of leads 225 comprises a first area (225a) wherein all of the top surface, bottom surface, and two side surfaces are covered by the resin encapsulated body, a second area (225b) wherein the top surface (see the device in figure 39 turning up side down) is covered by the resin encapsulated body and the bottom surface and the two side surfaces are exposed from the resin encapsulated body, and a third area (e.g., the outer portion of leads 225 protruding outside the package body) wherein the top surface, bottom surface, two side surfaces, and two end surfaces are exposed from the resin encapsulated body.

4. Claims 3, 7, 9, and 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Tandy (5,986,209).

The figures and reference numbers referred to in this office action are used merely to indicate an example of a specific teaching and are not to be taken as limiting.

Regarding claims 3, 7, 9, and 21, Kasai et al (see specifically figures 5, 6, 7B, and 7D, Col. 4, line 1 to Col. 5, line 10) disclose a semiconductor device comprising: a plurality of leads 104 each has a top surface, a bottom surface, two side surfaces, and two end surfaces, the leads having a square cross section shape perpendicular to the longitudinal direction of the leads; a resin encapsulated body 120 having a first surface 117, a second surface 116 opposite the first surface and having a smaller area than the first surface, and side surfaces through which the leads project, wherein the resin encapsulated body contains a tab (e.g., the end portion of each inner leads 106 from which the semiconductor chip 102 is mounted) sealed therein, each of leads comprises a first area (106) wherein all of the top surface, bottom surface, and two side surfaces are covered by the resin encapsulated body 120, a second area (114) wherein the top surface is covered by the resin encapsulated body 120 and the bottom surface and the two side surfaces are exposed from the resin encapsulated body 120 (see figures 6, 7B and 7D), and a third area 118 wherein the top surface, bottom surface, two side surfaces, and two end surfaces are exposed from the resin encapsulated body 120.

Regarding claim 22, since the inner end portion of lead 104 supports the chip 102 and connects to the portions 106/114/118 of each lead 104, the portions 106/114/118 of each lead 104 can be considered as a hand lead which comprises all the limitations of the claimed invention as detailed above.

Conclusion

6. Applicant's arguments with respect to claims **3, 7, 9, and 21-22** have been fully considered, but they are deemed to be moot in view of the new grounds of rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action because the newly added claims 21-22 raise new issues that would require further consideration and/or search. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luan Thai whose telephone number is (703) 308-1211. The examiner can normally be reached on 7:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on (703) 305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Luan Thai
April 29, 2003



DAVID L. TALBOTT
SUPERVISORY PATENT EXAMINER
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